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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,562	12/22/2000	Andrew Blake	MS158300.1	3390
27195	7590	07/13/2004	EXAMINER	
AMIN & TUROCY, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			WU, JINGGE	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,562

Applicant(s)

BLAKE ET AL.

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 17-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) 11-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicants' response to the last Office Action, filed April 21, 2004 has been entered and made of record.

Remark

2. Applicant's arguments with respect to claims 1-4 have been fully considered, but they are not persuasive.

- a. Applicant argues that Klassen uses a average color value to replace the non-key sub-pixel color value, which is different from the method of the application using a opacity value. Therefore, the 102 rejection should be withdrawn.

Examiner disagrees. The claim language in claim 1 calls for "an opacity value α " for each pixel. The language does not claim the opacity value is a constant value or "is ascertained through a sub-pixel mixture analysis" as Applicant argued in his remark. Thus, the limitation can not be read into the claim 1. Here, Klassen mentions the values either a value 0 that color matched wit background color) or average color value 0.5 that a color does not matches with the background color. To overcome Klassen, Applicant at least needs to defined what kind opacity value is in the independent claim.

Regarding claims 3-4, the references are cited for limitations of intelligent scissors and the formula of alpha mixing which is well known and also show the ascertained α value.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in–

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6525741 to Klassen et al.

As to claim 1, Klassen discloses a system for selecting a foreground region of an image, given a set of pixels defining the boundary of the foreground region of the image, comprising:

A component to determine a foreground value F and an opacity value α (col. 5 lines 6-col. 6 line 67, note that 0 for the color of the subpixel is matched to the background color, otherwise is 0.5 because of the average operation) for each pixel on the set wherein opacity value is determined via a subpixel edge offset to facilitate a separation of the foreground region from background portions of the image and to combine the foreground region with background portions from a new image (fig. 1a-1b, 2 and 4, col. 3 line 13-37 and col. 4 line 5-col. 7 line 33).

As to claim 2, Klassen further discloses foreground value and opacity value (0 or 0.5) are employed to mix the foreground with background region (fig. 1a-1b, 2 and 4, col. 3 line 13-37 and col. 4 line 5-col. 7 line 33).

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen in view of the paper "Intelligent Scissors for image composition" to Mortesen et al. (a reference of PTO 1449).

As to claim 3, Klassen defines the foreground region but does not explicitly mention "intelligent scissors".

Mrotesen, in an analogous environment, teaches utilizing intelligent scissors to define the boundary of an object (page 191-192).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the intelligent scissors of Mortesen in the system of Klassen in order to obtain accurate foreground region to combine.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen in view of US 5630037 to Schindler.

As to claim 4, Klassen further discloses mixing foreground and background but does not utilize the formula (note that Klassen's scheme is an instance of the formula, i.e. $\alpha = 0$ when the color of the subpixel is matched to the background color, otherwise $\alpha = 0.5$ because of the average operation).

However, the alpha mixing formula is well known in the art.

Schindler, in an analogous environment, teaches utilizing the formula for mixing the foreground and background pixel (col. 13, lines 18-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the formula of Schindler in the system of Klassen in order to obtain defect-free mixed image (Schindler col. 1-col. 2).

As to claims 5-9, Klassen further discloses borrowing, stochastically selecting and averaging the color or texture values from nearby pixels (fig. 1a-1b, 2 and 4, col. 3 line 13-37 and col. 4 line 5-col.7 line 33, note that weight can be 0 and 0.5 and the texture is the reconstructed color intensity of new pixel).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klassen in view of US 5142592 to Moler.

As to claim 10, Klassen does not mention determining the edge orientation.

Moler, in an analogous environment, teaches determining the edge orientation by producing a gradient vector that is perpendicular to the edge orientation (fig. 3c and 8a, col. 7 lines 38-66 and col. 9 lines 34-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Moler in the system of Klassen in order to obtain accurate edge (Moler col. 3 line 46-col. 4 line 4).

Allowable Subject Matter

7. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if **rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

Claims 12-16 depend from claim 11, therefore, are objected.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

9. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.


Jingge Wu
Primary Patent Examiner